

Hrovat, Kenneth

From: msfc-prep-osm <msfc-prep-osm@mail.nasa.gov>
Sent: Tuesday, February 28, 2023 12:25 PM
To: JSC-Cold-Stow-Ops; 'pimsops (pimsops@grc.nasa.gov)'; EITD Remote Operations Command & Control; Doraisingam, Shankini (JSC-OZ111) [BIOSERVE]; Martin, Dylan M. (JSC-HP27)[BIOSERVE SPACE TECHNOLOGIES]; ops@nanoracks.com; Barton, Kenneth W (JSC-OZ111)[TechShot]; MUSES; Kellogg, James R (JPL-332E)[JPL Employee]; alexander.longo@madeinspace.us; Newsham, Gerard (KSC-REMIS)[Aegis Aerospace, Inc.]; fcfops; Capell, Michael H. (JSC-EX/MIT)[MASSACHUSETTS INSTITUTE OF TECH]; Walter, Lucy (JSC-REMIS)[Aegis Aerospace, Inc.]; Clements, Twyman S. (JSC-OZ611)[SPACE TANGO, INC]; RWJAX-Payload Operations; Petersen, David (JSC-OZ611)[ISS SCIENCE, RESEARCH AND DEVELOPMENT]; Grim, Braden T. (JSC-OZ311)[Vioneering]; Wilson, Douglas L. (JSC-OZ611)[Center for the Advancement of Science in Space]; JSC-DL-HRP-Ops-Leads; gil.tellez@sierraspace.com; cadmos.declic@cnes.fr
Subject: Inc 68 POSSUM Review...
Importance: High

ISS IVA Users,

On GMT 045, crew executed a Payload On-Orbit Still Shots for Utilization and Maintenance (POSSUM) activity and may have captured cabin still imagery of your payload.

All IVA users are being notified as a courtesy. Please review imagery at your convenience. If any issues are observed (payload misconfigured or off-nominal signatures visibly apparent), **please contact your assigned POI Specialist** if further investigation is warranted.

Please do not reply to this e-mail!

Imagery located here on AEON:
[I68 POSSUM - Thumbnails \(nasa.gov\)](#)

Patricia Graves

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February 2023, INC68 POSSUM (Photo Summary), SAMS Subset

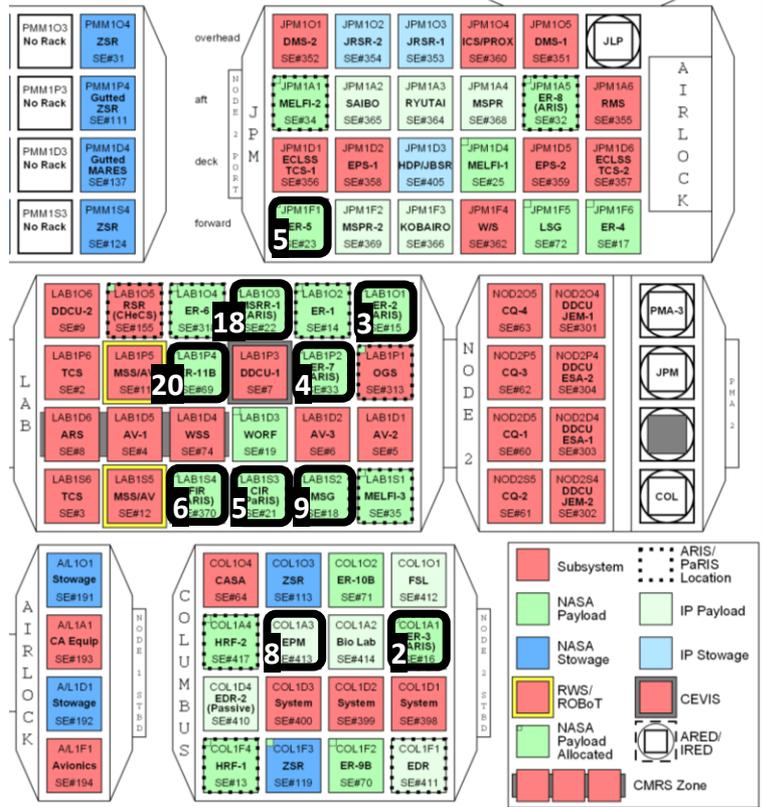
EE Chan.	SAMS Sensor	SAMS EE	EE location	Sensor Location	Cable S/N	Cable B/N	Cable Length (in.)
B	SE-F02	EE-F04	ER3 (embedded)	COL1A1, ER3, Seat Track Near ICF	EA12305-01***	000028L	48
B	SE-F03	EE-F02	ER1 RTS/D1	LAB1O1, ER2, Lower Z Panel	EA12304-01	000027L	85
A	SE-F04	EE-F01	ER7 (embedded)	LAB1P2, ER7, Cold Atom Lab Front Panel	EA12324-01*	000041L	42
A	SE-F05	EE-F06	ER5 RTS/D2	JPM1F1, ER5, Inside RTS/D2	n/a	n/a	n/a
A	SE-F08	EE-F04	ER3 (embedded)	COL1A3, EPM, near PK-4	EA12303-01	000029L	186
	TSH-ES 03	none	none	Stowed/spare	** large backshell on "P6" end of cable (toward EE)		
	TSH-ES 05	none	none	LAB1S3, inside CIR	* 42" cable clocking is offset; we typically use the SAMS J2 conn. on embedded EEs to not interfere with J1 exit, but not so on ER7 with Cold Atom Lab		
	TSH-ES 06	none	none	LAB1S4, inside FIR	*** stored inside RTS-D1 – made secure there on 10/30/19		
	TSH-ES 09	none	none	LAB1S2, inside MSG, Particle Vibration	7m EE to TSH-ES Cable, P/N 60005EA50072, S/N 201 hard-wired		
	TSH-ES 18	EE-F05	ER2 (embedded)	MSRR, KERMIT & ER6 Seat Track	Reported found & stowed @ JLP1A1_G on GMT 055 of 2022.		
	TSH-ES 19	none	none	Stowed/spare	7m EE to TSH-ES Cable, P/N 60005EA50072, S/N 202 hard-wired		
	TSH-ES 20	EE-F05	ER2 (embedded)	LAB1P4, 4CBO2			

SAMS Sensor Deployment in All 3 Labs of the ISS as of GMT 2023-03-06

The yellow-highlighted digit(s) of SAMS sensor serial numbers in **table above** are shown with black/white annotations in the **topology image on the right**.

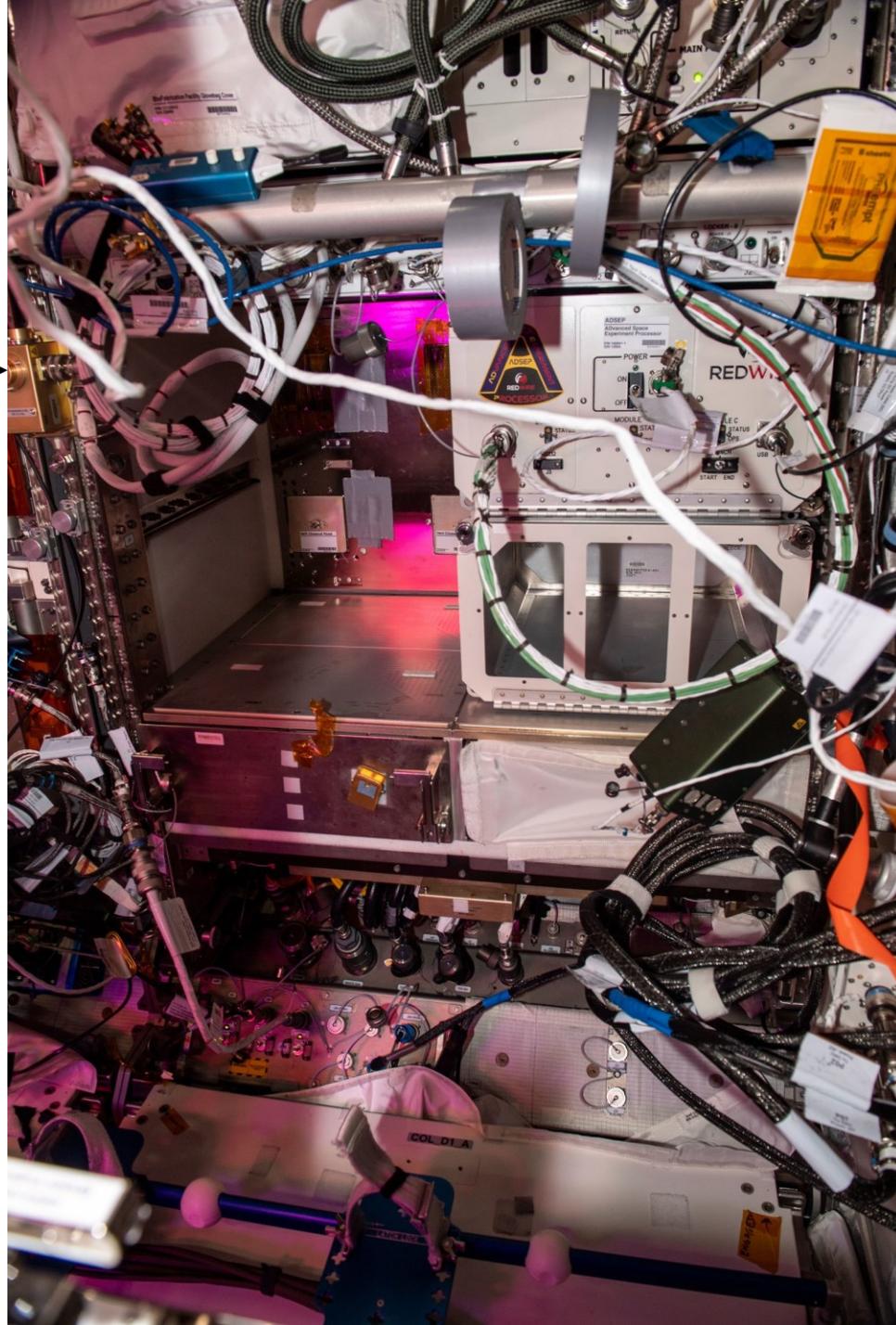
The following slides are Inc68 on-orbit photos showing some of the SAMS hardware as deployed. You may have to zoom-in and look closely for the "gold" plated sensor head.

>> [this is OSM's POSSUM URL/Link](#) <<



PAYLOADS SUPPORT
Multiple ESA
payloads e.g. EML,
FLUIDICS

Columbus
COL1A1
ER-3
SAMS SE-F02



PAYLOADS SUPPORT
GTCS and
Primary Struc&Mech
Sensor Location



US LAB
LAB101
ER-2
SAMS SE-F03
Lower Z-Panel
HIDDEN FROM VIEW

PAYLOADS SUPPORT
GTCS and
Primary Struc&Mech
Sensor Location

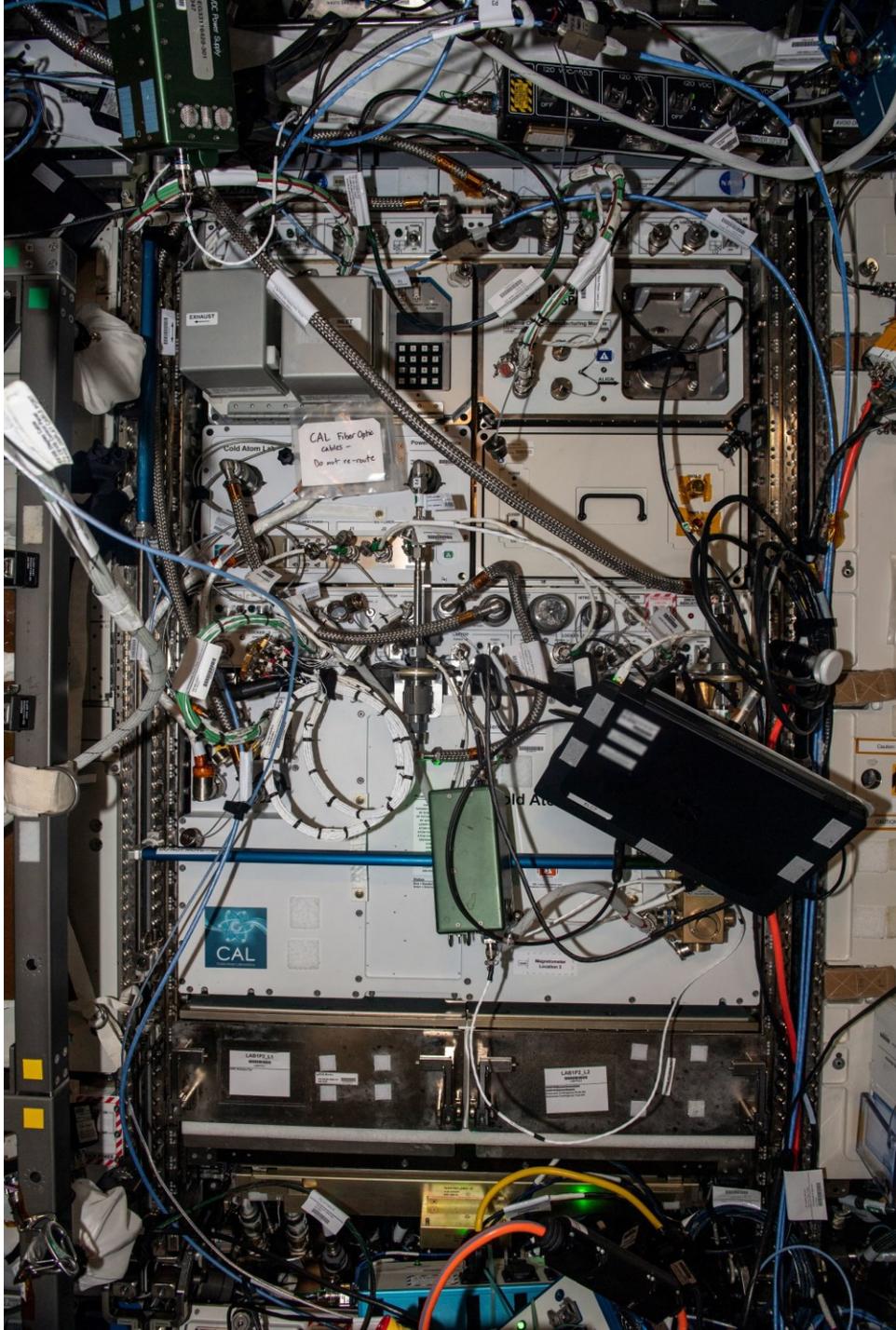
This is not from Inc68 POSSUM photo survey, but
from earlier date and included for reference.

US LAB
LAB101
ER-2
SAMS SE-F03
Lower Z-Panel



ISS004E8374

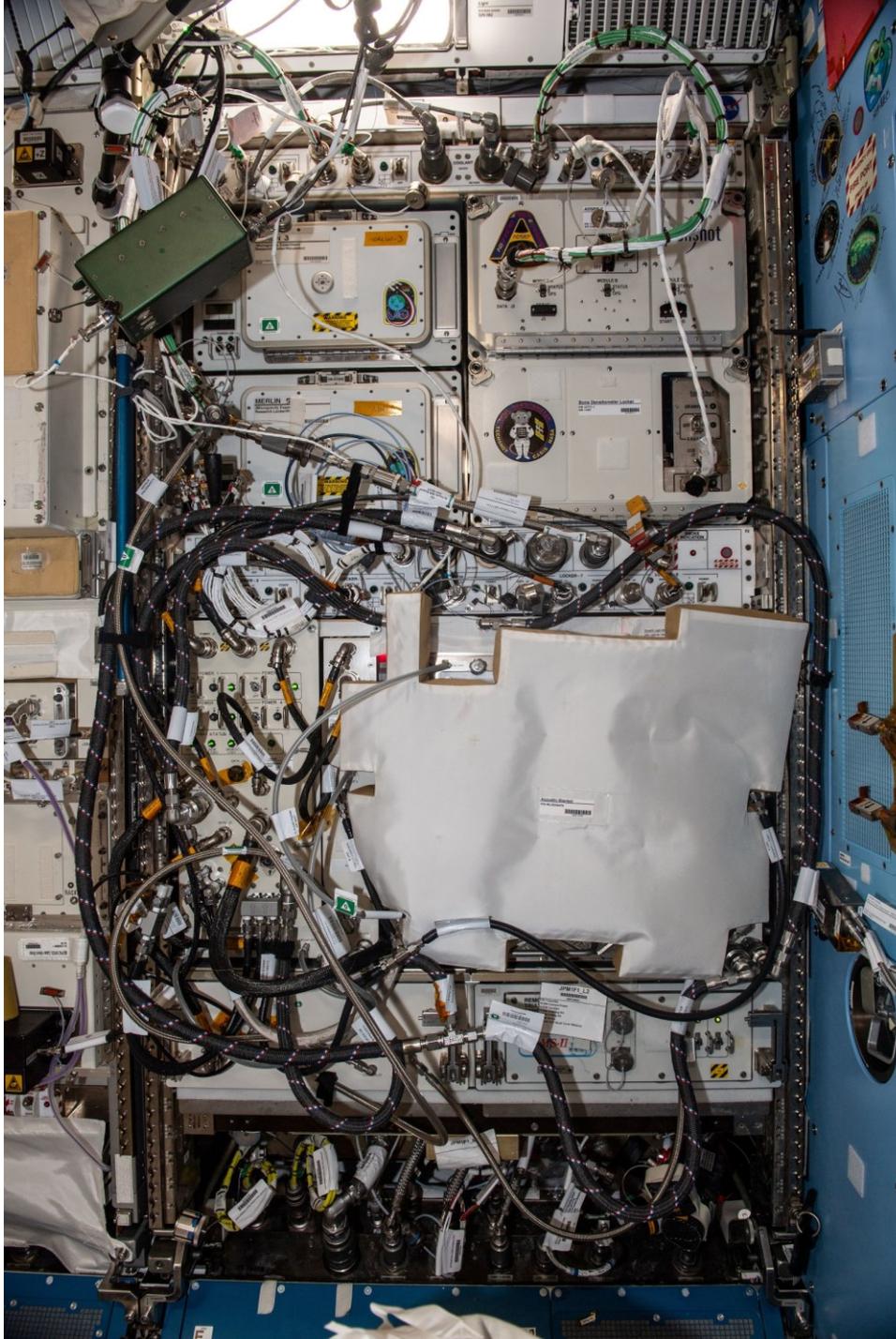
PAYLOADS SUPPORT
Cold Atom Lab



US LAB
LAB1P2
ER-7
SAMS SE-F04
bolted to front of
Cold Atom Lab



PAYLOADS SUPPORT
Multiple JAXA
payloads, including
Plant Habitat



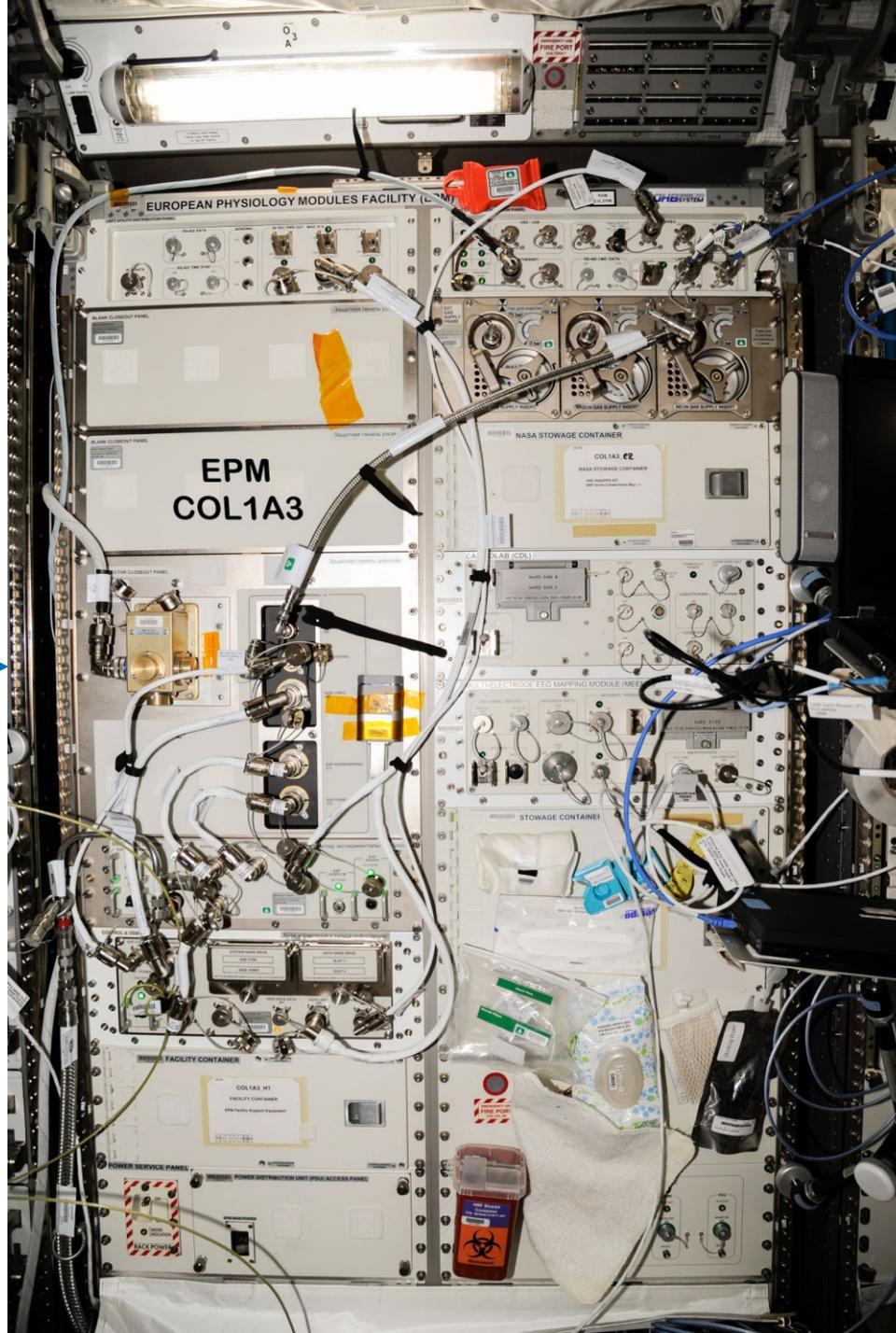
JEM
JPM1F1
ER-5
SAMS SE-F05
inside RTS/D2



PAYLOADS SUPPORT
ESA Payloads
including PK-4

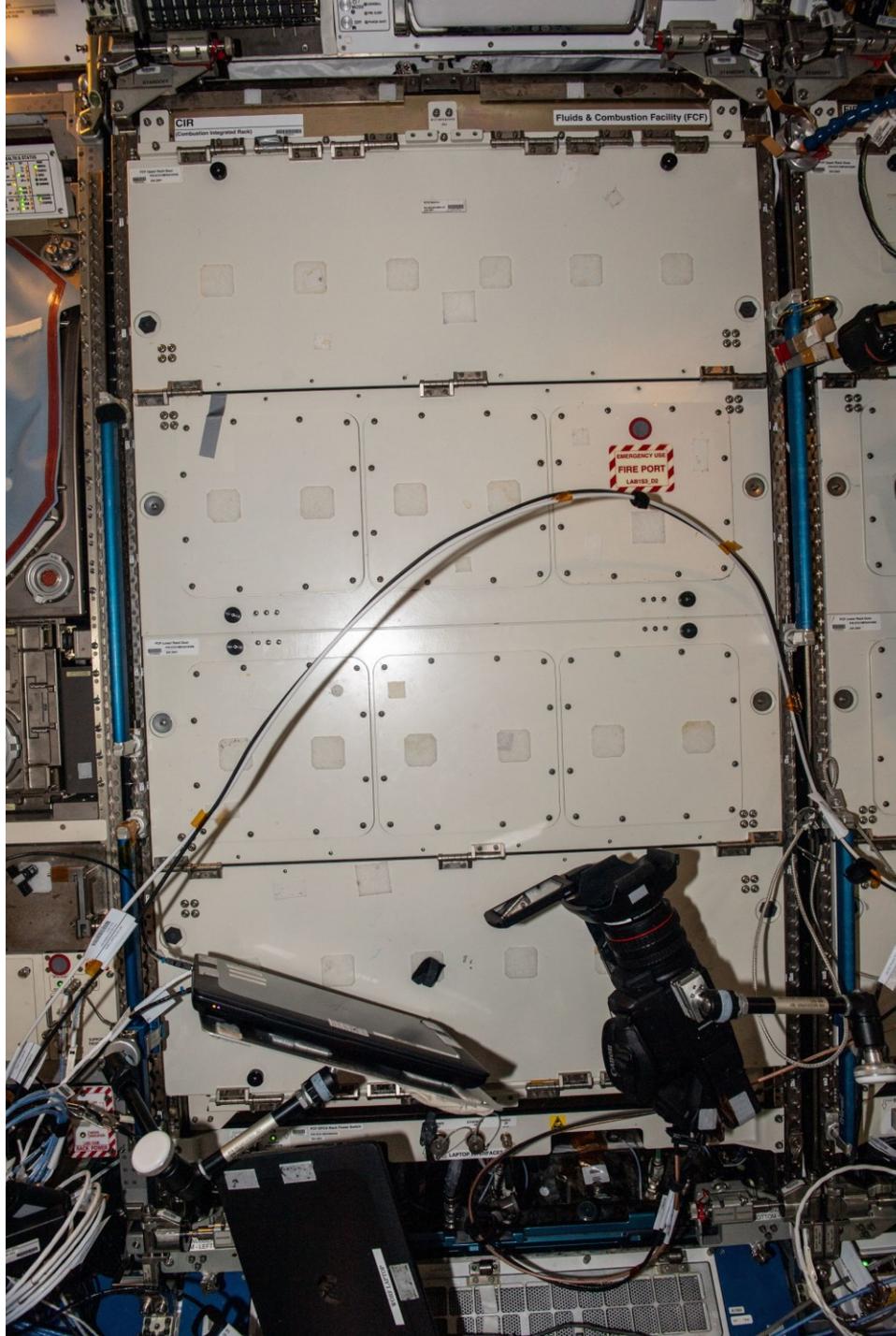
Columbus
COL1A3
EPM
SAMS SE-F08
near PK-4

This is not from
Inc68 POSSUM
photo survey, but
from earlier date
and included for
reference.



PAYLOADS SUPPORT

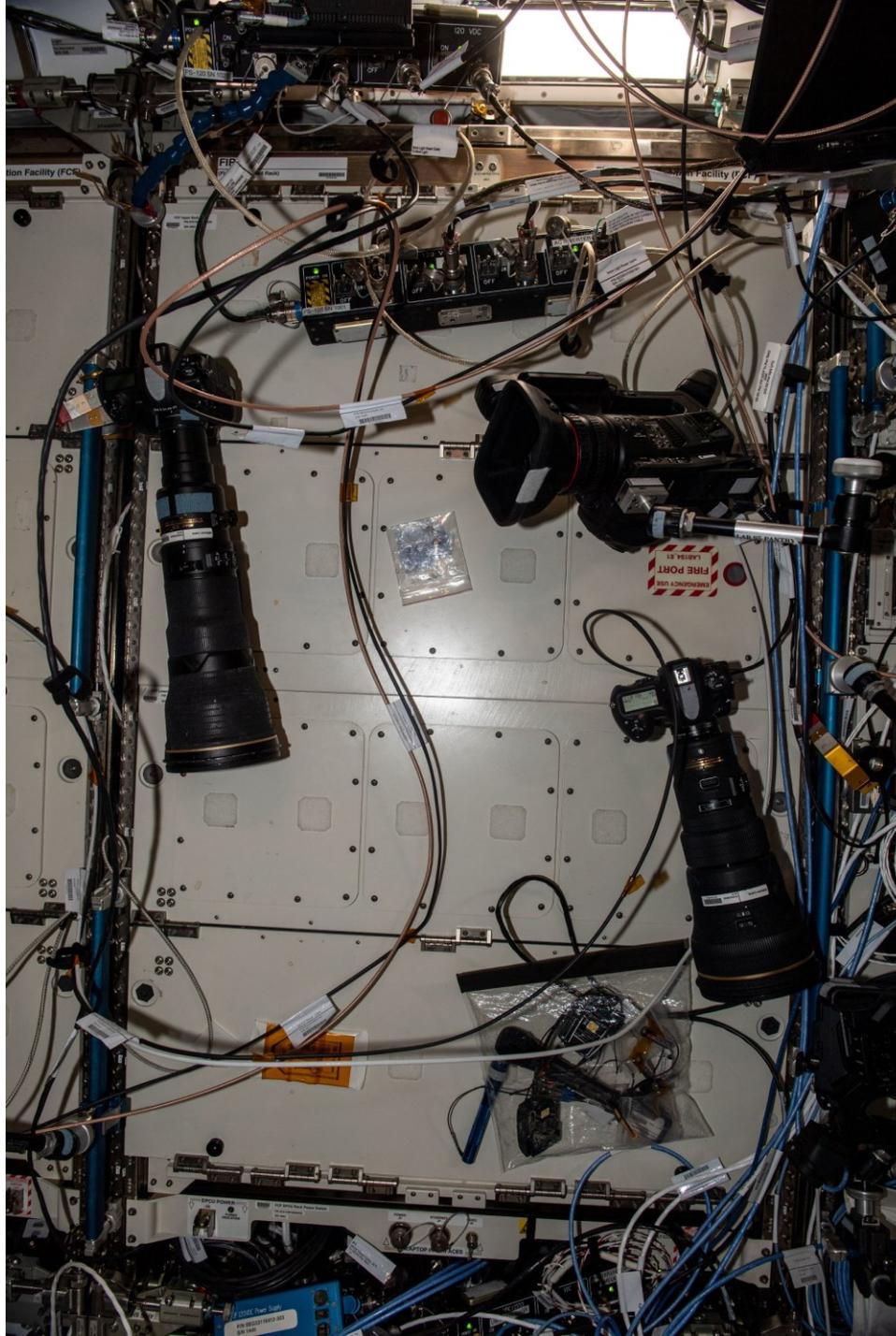
Numerous
Combustion
Payloads



US LAB
LAB1S3
SAMS TSH-ES 05
inside CIR

PAYLOADS SUPPORT

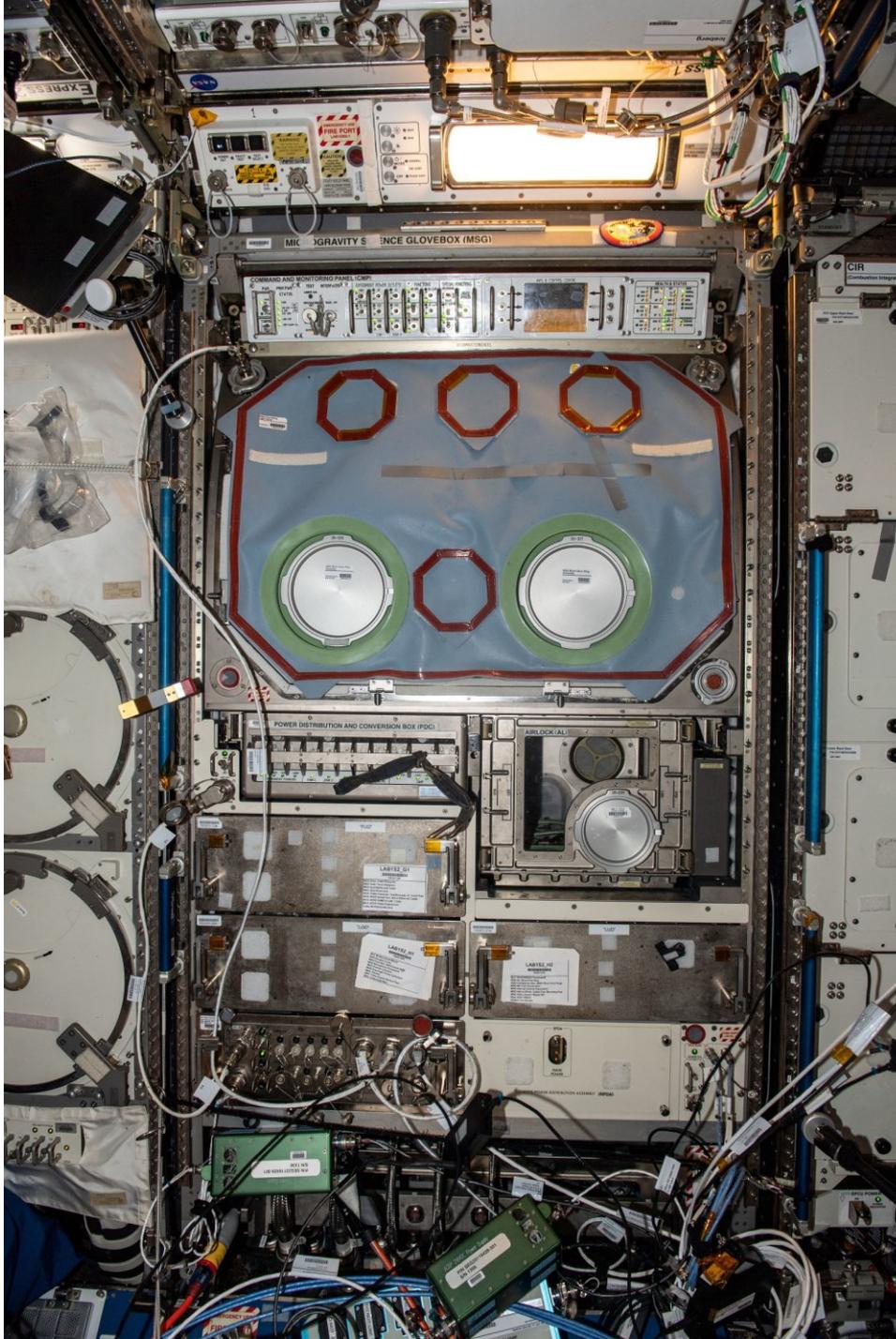
Numerous
Fluids
Payloads



US LAB
LAB1S4
SAMS TSH-ES 06
inside FIR

PAYLOADS SUPPORT

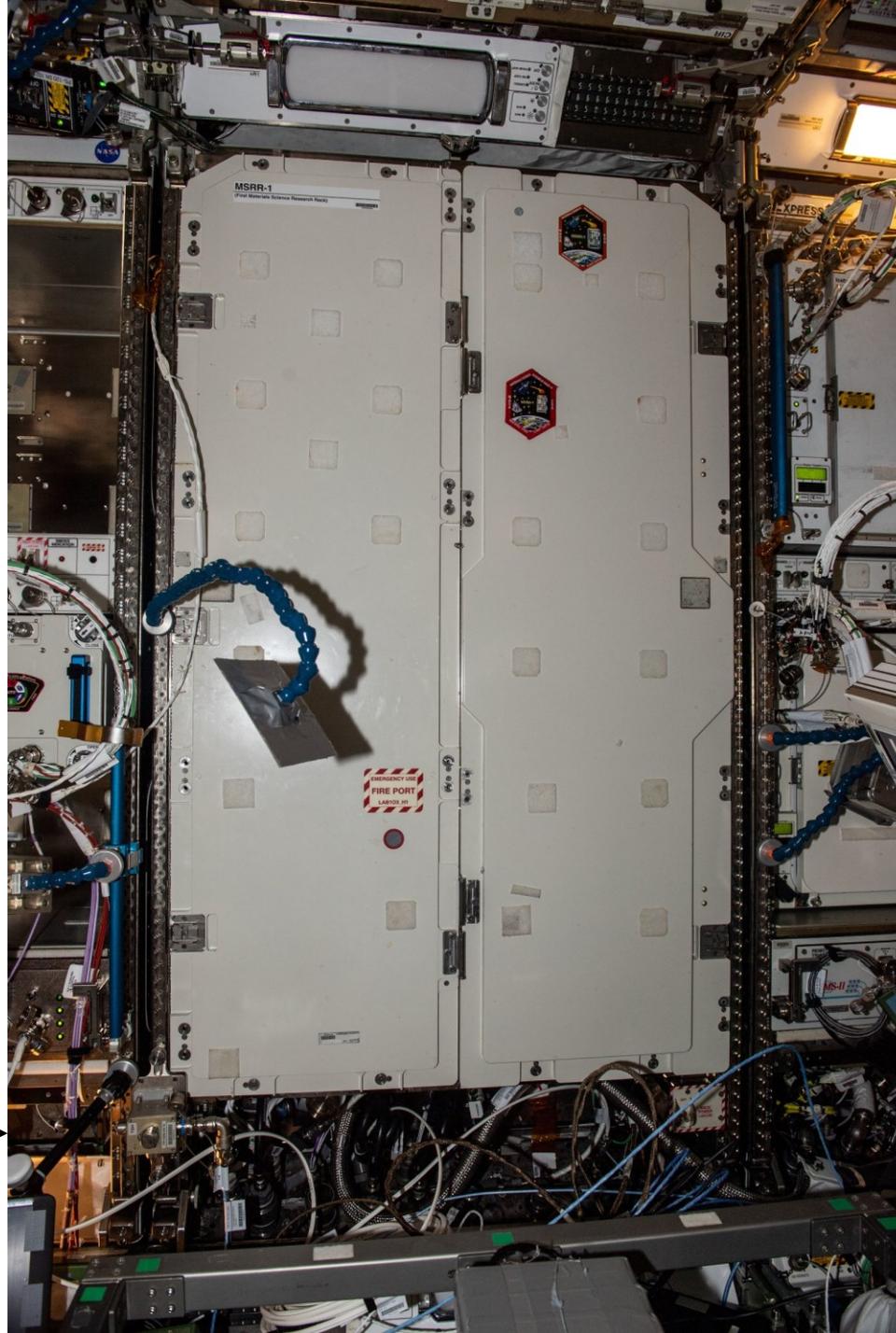
Numerous
Glovebox
Payloads



US LAB
LAB1S2
SAMS TSH-ES 09
inside MSG

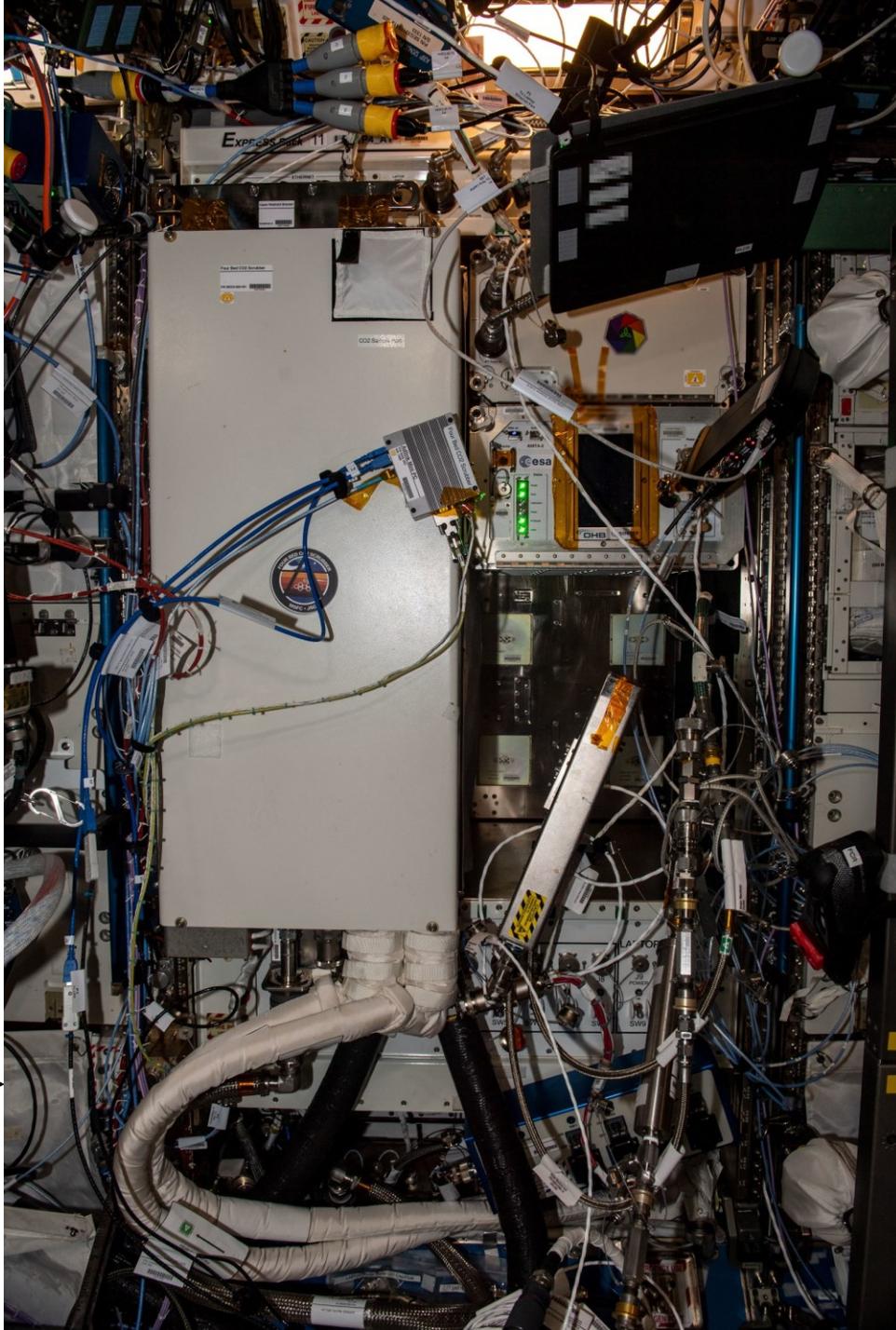
PAYLOADS SUPPORT
KERMIT & Material
Science Research

US LAB
LAB103
MSRR
SAMS TSH-ES 18
on seat track device



PAYLOADS SUPPORT
4BCO2
Technology
Development

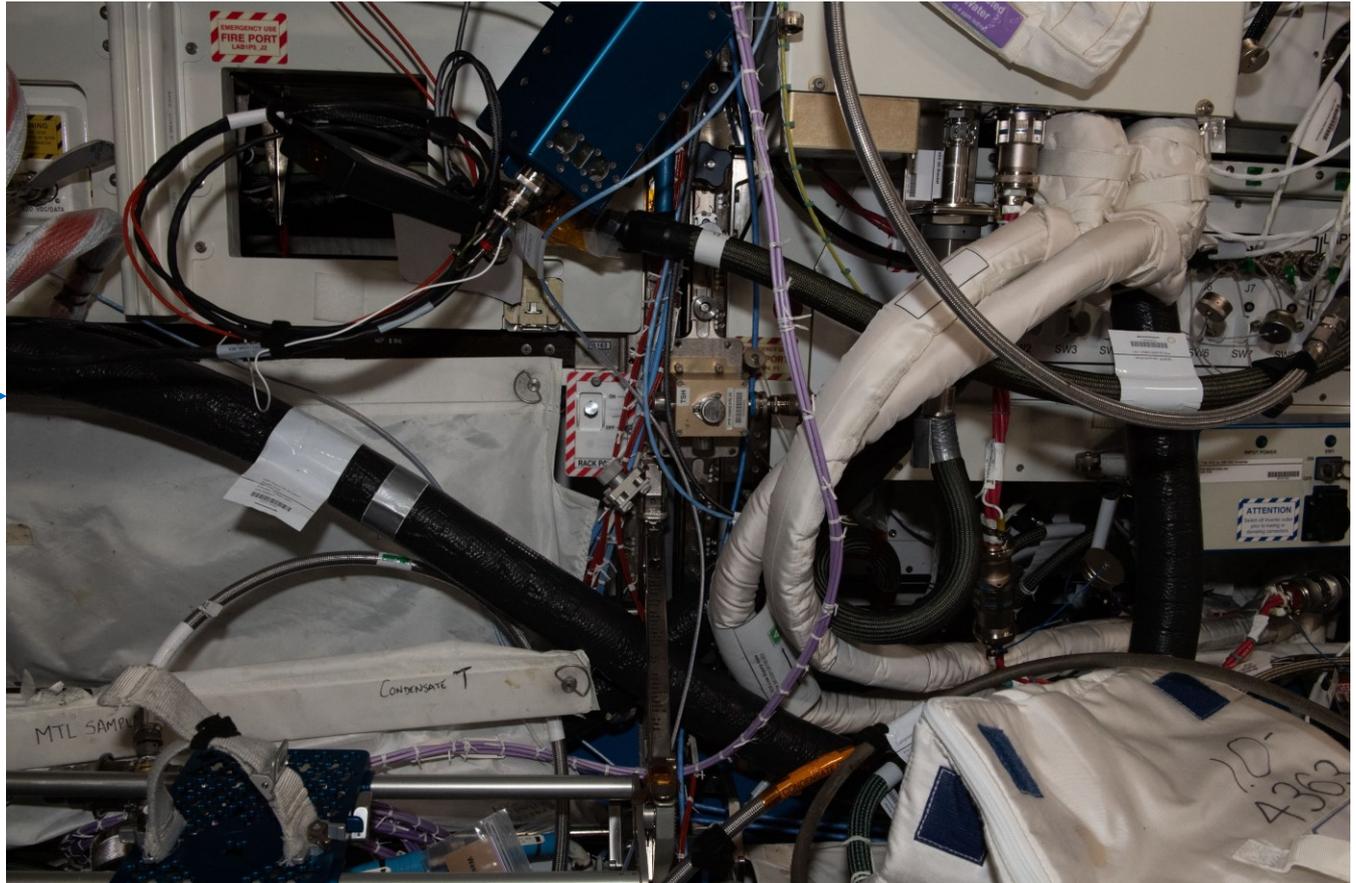
US LAB
LAB1P4
ER11B
SAMS TSH-ES 20
on seat track device



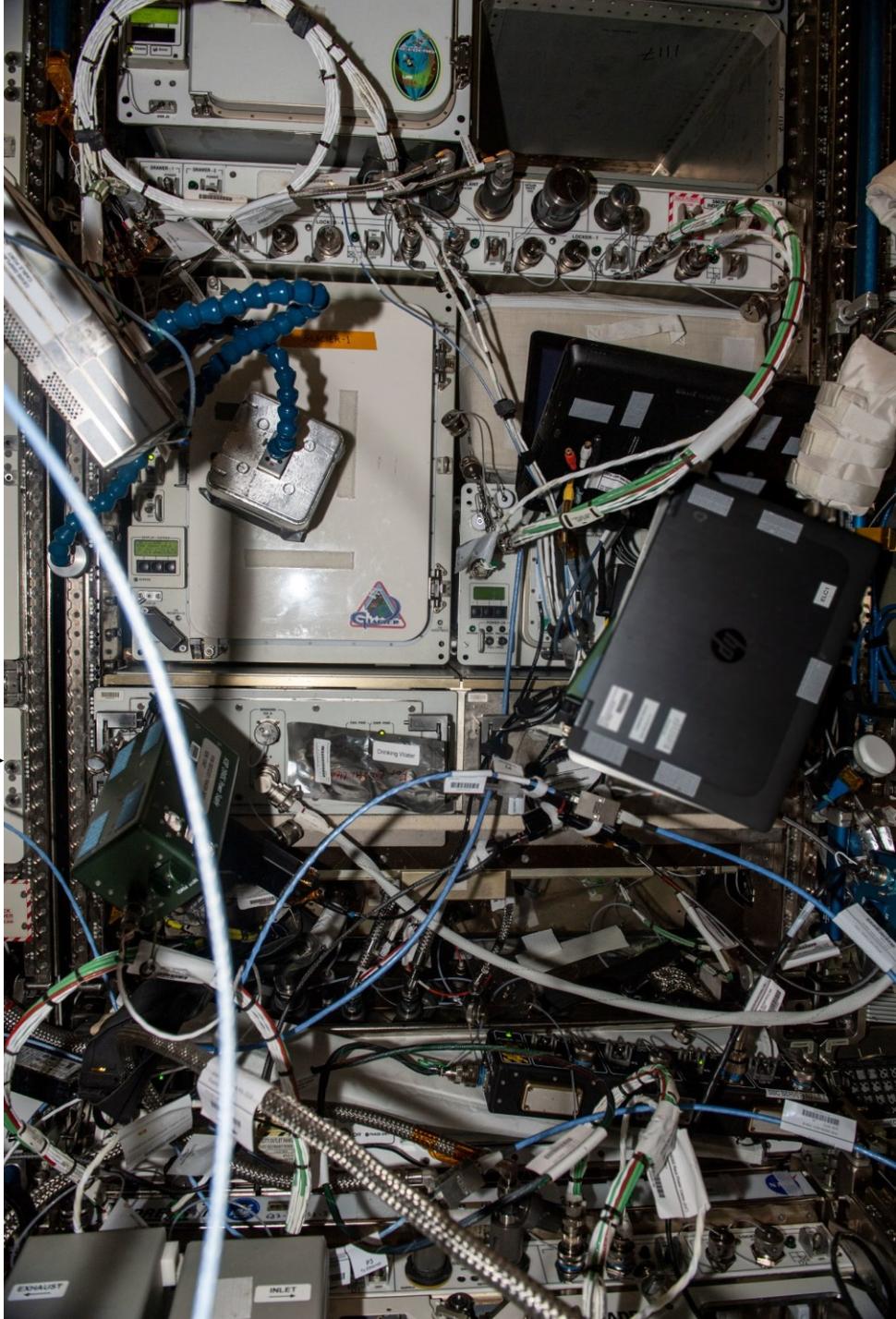
PAYLOADS SUPPORT
4BCO2
Technology
Development

US LAB
LAB1P4
4BCO2
SAMS TSH-ES 20
on seat track device

**This is not from
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photo survey, but
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and included for
reference.**



US LAB
LAB102
ER-1
SAMS RTS/D1



US LAB
LAB102
ER-1
SAMS Control
Unit
ZBook Laptop

US LAB

LAB104

ER-6

Locker 1 supplies
power for shared
power strip,

SAMS Control

Unit ZBook

Laptop's power

*not sure which exactly is the
power strip, probably the
yellow, 3-legged cable*

